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ABSTRACT

Two cartoon strips were the vehicle for surveying perceptions of power use in everyday situations. A stratified cross-sectional sample of 430 adults in Los Angeles were interviewed. Their task was to choose a behavior, illustrated by a cartoon panel, most likely to be employed by a policeman in one instance and a nurse in another to secure compliance with a request. Also, the person interviewed was to choose the reaction of the cartoon subject to the request. Frameworks for analyzing the data were patterns of compliance; choice of power base, whether informational, legitimate, coercive, expert, referent, or reward; compliance contingent on power base; and demographic difference. Among the demographic factors of age, education, and sex, age differences generated the most striking effects. Use of the cartoon as a medium to study perception of power was dictated not solely because of its feasibility but because of a suspected underlying affinity between the message and the medium. Emphasis should be placed on the fact that the data represent perceptions of behavior, not actual behavior. (Author/JH)

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The Measurement of Power Perception through Cartoon Strip Completion

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To tap perceptions of power use in real world everyday situations with a technique that enables us to reach unreachable and widely varied segments of the population -- across barriers of age, language, education, even affluence -- we are exploring the use of that familiar affectionately-regarded art-form, the comic strip. The comic or cartoon strip, the "funnies," classically consists of a set of simple line drawings (panels) arranged in temporal sequence to portray a little action story, with the conversation along with sound effects written inside "balloons" emanating from the mouths of the characters. An incidentally American invention (White & Abel, 1963), the funnies have proved very durable -- since about 1900 -- and very popular: Approximately 2/3 of the respondents in the survey we'll be reporting here admitted to being at least occasional strip readers. The funnies have also served other social scientists well as a medium for the study of a host of phenomena (e.g., Berger,1966; Ehrle & Johnson, 1961; Shapiro, Biber, & Minuchin, 1957; Spiegelman, Terwilliger, & Fearing, 1953).

For our purposes we have developed two experimental cartoon strips, each of which presents in a 5-panel sequence an attempt by one character (the agent) to secure compliance from another character (the target) to an action request. The two strips

differ in the social role of the agent (a policeman in A, a hospital nurse in B), in the action request (to move away from a streetcorner in A, to put out a cigarette and not smoke in B), and in the sex both of agent and target (male in A, female in B). These (and other less obvious) differences make comparisons between responses to the two strips clearly complex; the two are intended to be illustrative of range rather than explanatory.

The essence of our technique lies in the presentation to a reader (subject) of alternate panels for those aspects of the interaction in which we are interested, with the instruction that he/she is to choose the likely panel (or rank the choices in order of likelihood). Thus for each strip (see Handout 1) panel 1 sets the stage (a young man standing alone on a streetcorner in A, a bedridden female hospital patient smoking a cigarette in B), in panel 2 the influence agent states his action request, and for panel 3 there are six possibilities -- the agent is shown employing each of the six posited bases of power (Raven, 1965; French & Raven, 1959). The final two panels each allow for either compliance or noncompliance, immediately (panel 4) and "sometime later" with the agent no longer present (panel 5). At this early stage in our work with this approach we are concerned with respondents' choices for panel 3, and with perceived compliance patterns contingent upon as well as irrespective of power base choice.

Empirical Findings

Our first use of the comic strips was in a UCLA classroom setting. We employed a self-administered booklet format, counterbalancing order of presentation of the two strips. A rank ordering of the six power bases in terms of likelihood and a compliance pattern assuming the subject's choice as most likely for panel 3

had obtained for both strips from a total of 245 undergraduates (100 male, 145 female). Our second and more ambitious application of the technique incorporated these same materials in an interview schedule which was administered in the spring of 1973 to a stratified cross-sectional sample of 430 adults in the greater Los Angeles area. Since the major findings for the college group exactly parallel those for the larger and more general population in the survey, we will limit our presentation of results to those from the survey.

The Sample and Procedure

Interviewing was conducted door-to-door by 20 student interviewers, each instructed to obtain equal numbers of respondents from a set number of census tract locales, balanced by age and sex and order of presentation of the two cartoon strips. The interviewers (who had authorizing documents in hand) presented themselves as representing "University of California Studies in Public Opinion" and solicited the cooperation of the respondent (whoever answered the door) for "a short survey... several questions about how people deal with one another." The comic strip materials were presented without further rationale. After the subject had indicated his choices for both strips, he was asked a few additional questions (some entirely unrelated to our study), demographic information was obtained, and the respondent was thanked for his help. The complete procedure took roughly 30 minutes. As far as we can tell there were no significant problems in gathering the data; however, our interviewers were inexperienced, they were college students, their motivation was to complete a course requirement. We have no estimate of refusal rate, nor of

interviewer skill. These are important but we think not fatal limitations to our study.

The obtained sample of 430 was equally divided by sex. Over half of our respondents were under 40 years of age (40% under 30 and 15% sixty and older); 1/3 were college graduates and another third had at least some college; two-thirds were Anglo; 37% described themselves as Protestant and 56% reported their political affiliation as Democrat. These distributions are adequately representative of the target population.

In the analyses which follow we have instituted controls where possible and have examined the findings separately for the factors of age (a two-way split -- under 40 vs. 40 and older -- and in a separate analysis a three-way split -- under 30, 30 through 49, 50 and older), of education (at least some college vs. none) which we intend as an index of socioeconomic status, and of sex. The statistic employed has generally been analysis of variance using unweighted (that is, equally weighted) means to compensate for unequal cell sizes.

Compliance Patterns

Our strongest finding overall ($p < .001$) is the not surprising expectation by all subjects that regardless of which situation or which power base, much more compliance will obtain initially than "sometime later" -- 84% compliance choice for panel 4 vs. 52% for panel 5. There was also much more compliance predicted -- initially and later -- for strip A than for B ($p < .01$), a difference attributable perhaps to the difference in agent's social role, in

the content of the action request, in the sex of the charactors, or to all three confounded differences. A significant interaction ($p<.01$) between strip and time (see Handout 2) is also ambiguous as to cause though clear in suggesting that duration of compliance is situation-tied; there is a greater drop-off in compliance with the initially weaker influence attempt.

Choice of Power Base[2]

The respondents' ordering of perceived likelihood for the six power bases (panel 3 in the strips) is presented in Handout 2, in terms of the average rankings and of the numbers of subjects citing each alternative as a first choice. For either measure and for both strips, information is very evidently the most preferred option. Legitimate, coercion, and expert follow next in choice; referent is seen as somewhat less likely and reward as least likely of all.

If the ranking data are analyzed separately for each power base, an estimate of the significance of the differences in patterns of choice for the individual strips apparent in Handout 2 can be made. As the means would suggest, there are two statistically stable ($p<.01$) strip differences: Legitimate is seen as more likely for A than for B, and information is seen as more likely for B than for A. One must keep in mind, however, that these mutually exclusive choices yield data which are nonindependent.

Compliance Contingent upon Power Base

A question of considerable practical import is whether the compliance an agent can secure is effected by the kind of influence attempt he makes, that is, by the power base he employs. Respondents were specifically instructed to give their panel 4 and 5 choices in

each case assuming panel 3 to contain their chosen "most likely" alternative. An analysis of variance of the compliance responses incorporating power base choice as a between-subjects variance source provides a rough but suitable means of checking the contingency question. In this instance the grossly unequal and small Ns made it impossible to maintain the demographic controls and imperative that the analysis be done separately for the two strips. For strip B there was no indication that power base had any effect on compliance; for strip A on the other hand there is some association between base and outcome (see Handout 2).

For strip A, the most compliance is predicted by those subjects who chose reward, next by those who chose information and referent, then expert and legitimacy, and last coercion. Furthermore -- still only for strip A -- there seems to be an interaction effect (the tabled p value is $<.01$): Those who chose legitimate and coercion were most prone to predict a drop in compliance from panel 4 to 5, while those who chose reward saw none. (These compliance patterns are presented at the bottom of Handout 2, but caution is especially urged for these because of the small Ns.)

Demographic Differences

As noted above, statistical controls for age, education (SES), and sex were incorporated in the analyses of overall compliance patterns and choice of power base. We fully expected that the rather large differences among our respondents in these important demographic characteristics would be associated with quite different choice patterns. In fact, the usually overlooked and certainly

underinvestigated dimension of chronological age did yield some interesting strong effects. For education, we found only that reward was seen as a more likely power base by the less educated ($p<.01$); for sex, women saw legitimate as a more likely power base than did men ($p<.05$). The findings in regard to age differences, however, are rather challenging: (a) older subjects predicted more compliance ($p<.01$), (b) the drop-off in compliance is seen as greater by younger subjects ($p<.01$), (c) in power base preference, referent was chosen more by older and coercion by younger subjects (both $p<.01$).

Discussion

The findings we have presented, these data from our modest survey, are entirely concerned with perception of likely behaviors. There is nothing about what should be, either by moral or effectiveness standards; nothing about what the subject himself might do, whether as agent or target; nothing of presumed reasons for the behavior or consequences of it, aside from overt and relatively short-term compliance. And of course there is nothing of actual behavior; we are dealing with perceptions solely. It is important to remember this when we ponder the absence of findings for sex -- both sexes were responding to a male/male encounter in strip A, female/female in B, and their perceptions were similar. Age on the other hand evidently can involve different expectations when subjects observe what is objectively the identical encounter, a fact which is perhaps reflected in cross-generational conflict.

Thus the substantive findings begin to be interesting. However, it is quite apparent that the cartoon-strip-completion method is in its infancy. A colleague, Jeff Rubin, and his student (Leet-

Pellegrini & Rubin, 1974)have explored the use of the method in an experimental setting -- varying the sex of the characters in a strip -- and a UCLA student, Luis Betancourt, is presently gathering data in his native Columbia with translated versions of our two strips. But there need to be studies with more types of action requests and agents, and with strips which allow for the subject's participation -- filling in the speech balloons himself perhaps. In our survey we did get some indication of the credibility of our strips; we asked at the close of the interview whether the strips "really show what a policeman (nurse) is likely to do or say." In reply, 77% said yes for strip A, 84% for strip B. For those subjects who had other ideas for panel 3, we requested a resulting compliance pattern. Level of compliance (immediate or delayed, for strip A or B) was substantially the same under these circumstances as for the standard panels.

In conclusion we must say a word about humor. It is an odd fact that the funnies are rarely if ever funny; certainly our strip A and strip B are deadly serious. In truth the comics are notorious as portrayers not of humor but of violence and the violent exercise of power. Protagonists struggling to dominate, control, outwit, or vanquish, drawn by proponents of the pow-whack-splat school have characterized this art-form from the classic Katzenjammers and old brick-throwing Krazy Kat through the much condemned animated cartoon violence of the kiddie TV shows to the sometimes horrifying graphics of the new underground comics, both animated and in strip. So our use of this medium to study the perception of power was dictated not solely because of its feasibility, but because we suspect an underlying affinity between our message and our medium which ought to help.

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Footnotes

1.The research reported here was conducted with some assistance from a Faculty Research Grant to the second author and with a great deal of volunteer labor; we wish to thank Richard Centers who graciously allowed our survey to become the class project for his UCLA course in survey method, the members of Professor Centers's class who did the actual interviewing, Sandy Smith who drew the comic strips we used, and Marianne J. Calley, Rosann Giarrusso, Lena Gonzales, and Jay Millet who took much of the responsibility for coding and analyzing the data.

2. Constraints on the time and patience of survey respondents necessitated our requiring only a partial ordering of the six choices for panel 3. Respondents indicated a most likely, a next most likely, and a most unlikely choice; the unchosen three alternatives were scored as if given the equally tied rank of 4.

Power Perception Through Cartoon Strip Completion

Handout 1

Description of Stimulus Materials

PANEL 1: Setting the Scene.

Strip A	Strip B
Young man standing alone on street-corner	Young woman sitting up in hospital bed, smoking cigarette

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PANEL 2: Statement of Action Request.

Enter uniformed policeman, saying "Would you please move along away from here."	Enter uniformed nurse, saying "You are not to smoke. Please put it out."

PANEL 3: Alternate Influence Attempts (each a speech by the Agent.)

a. (Expert) "You will have to take my word for it, but I happen to know that this is not a place for you to stand."	"You will have to take my word for it, smoking is <u>not</u> for you."
b. (Reward) "Do this for me and I will keep it in mind--there are ways that <u>I</u> can help <u>you</u>."	"Do this for me, and I will keep it in mind. There are things that I can do for <u>you</u>."
c. (Legitimate) "I am asking you to do this as part of my job."	"This is one of the things a nurse has to do."
d. (Informational) "I don't suppose you noticed, but there is a door behind you and it opens <u>out</u>."	"Look at your chart. Smoking makes you worse."
e. (Referent) "Speaking as a friend, I wouldn't stand here and you shouldn't either."	"I don't smoke, and you shouldn't either."
f. (Coercion) "If you don't, I will have to take you in and book you--it won't be good for you."	"If you don't, I will have to report this, and you will hear more about it later."

Handout 1 (contd)

PANEL 4: Alternate Immediate Response (Agent watching)

(a) Young man does not move, saying "I am not moving."	(a) Young woman continues to smoke, saying "Sorry, I am not quitting."
(b) Young man walks away, saying "OK, I am leaving."	(b) Young woman puts cigarette out in bedside ashtray, saying "OK, I'll stop."

PANEL 5: Alternate Final Action, with heading "Sometime Later, with the Policeman [Nurse] Gone for the Day."

(a) Same young man again standing on same corner, saying "No one around. Guess I'll stay here a while."	(a) Same young woman silently smoking (Identical to Panel 1)
(b) Same young man walks past the corner, saying "This is one place where I am <u>not</u> going to be standing."	(b) Same young woman tosses pack of cigarettes into bedside wastebasket, saying "I guess I won't be smoking any more."

Goodchilds/Raven

Power Perception Through Cartoon Strip Completion

Handout 2

Compliance Patterns

	% choosing compliance for Panel		
	4 and 5	4 but not 5	neither
Strip A (Police)	57	32	7
B (Nurse)	38	40	18

Power Base

	$\bar{X}$ Rank (1 = Most likely)		N choosing as Most likely	
	Strip A	B	A	B
Expert	3.34	3.28	57	66
Reward	4.48	4.49	16	26
Legitimate	2.96	3.24	76	58
Information	2.94	2.63	120	165
Referent	4.00	4.12	46	24
Coercion	3.33	3.25	112	92

Compliance X Power Base (Strip A)

	% choosing compliance for Panel		
	4 and 5	4 but not 5	neither
Expert	58	23	9
Reward	87	0	7
Legitimate	49	43	6
Information	69	28	1
Referent	72	17	9
Coercion	42	42	11